

m-2



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,772	09/17/2003	Volker Braun	Q77079	2953

23373 7590 12/12/2006  
SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER

WIN, AUNG T

ART UNIT PAPER NUMBER

2617

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/663,772

Applicant(s)

BRAUN ET AL.

Examiner

Aung T. Win

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luschi et al. (US20030045288A1) in view of Applicant admitted prior art: Kogiantis (EP1211820 A).

1.1 Regarding Claims 1, 2, 4 & 10, Luschi discloses a HSDPA system and method of sending first and second signals to a plurality of user equipments, the method comprising the steps of:

providing of a dedicated channel [Downlink dedicated physical channel (DPCH) per user: 0006, 0007, 0018 & 0049] [Downlink Signaling: 0008 & 0061] [3GPP HSDPA: Back ground] for each one of the plurality of user equipments,

providing of a code-multiplexed shared channel [High Speech Downlink Shared Channel (HS\_DSCH) shared among users: 0006, 0007, 0018 & 0049, 0051] for the plurality of user equipments.

Luschi does not explicitly disclose transmit diversity and multi-user diversity although the concept and advantages of such diversity techniques are well known to skill in the art.

Admitted prior art: Kogiantis Multiple Input Multiple out (MIMO) system and method discloses employing transmit diversity and multi-user diversity (i.e., assigning antenna of multiple antennas to transmit to users in different times) [Summary: 0007 & 0008] [0011 & 0012].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention of made to modify the Luschi HSDPA system and method to employ transmit diversity and multi-user diversity method as taught by Kogiantis to modify as claimed. One of ordinary skill in the art would have been motivated to do this to implement improved channel allocation method for improved system with better spectral efficiency.

1.2 Claim 3 is rejected for the same reason as stated above in Claim 1 rejection. At the time of invention of made, it is obvious to one of ordinary skill in the art that modified system teaches claimed assigning steps because modified method teaches FDMA method wherein communication channels are created by transmitting data over different carrier frequencies [Kogiantis: FDMA 0013].

Art Unit: 2617

1.3 Claim 5 is rejected for the same reason as stated above in Claim 1 rejection.

Modified system is HSPDA system as stated above utilizes closed-loop transmit diversity techniques i.e., channel allocation based on the feedback information from mobile stations [0009].

1.4 Claim 6 is rejected for the same reason as stated above in Claim 1 rejection because claimed steps substantially read on the corresponding steps of Claim 1. It is obvious to one skill in the art that modified system must have claimed computer program product comprising a storage medium in order to store program instructions for executing the claimed steps.

1.5 Claims 7, 8 & 9 are rejected for the same reason as stated above in Claim 1 rejection because claimed steps substantially reads on the corresponding steps of Claim 1. Modified system discloses base station (claimed sender) for sending of first and second signals to a plurality of user equipments [See Figures and claim 1 rejection]. It is obvious to one of ordinary skill in the art that modified base station must have claimed components in order to execute claimed steps.

### ***Conclusion***

Art Unit: 2617

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Hottinen US20040066754A1

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aung T. Win whose telephone number is (571) 272-7549. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aung T. Win  
Group Art Unit 2617  
December 7, 2006

  
DUC M. NGUYEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600